

What Is Claimed Is:

1. A method of reclaiming silicon wafers which includes a film removal process, a polishing process, and a cleaning process, wherein the method comprises a heating / removal process for heating the silicon wafer at 150 - 300°C for 20 minutes - 5 hours and for removing the surface part of the silicon wafer, between the film removal process and the polishing process.

2. The method of reclaiming silicon wafers according to Claim 1, wherein the heating / removal process includes a mechanical removal process.

3. The method of reclaiming silicon wafers according to Claim 1, wherein the heating / removal process includes a chemical removal process.

4. The method of reclaiming silicon wafers according to Claim 3, wherein the chemical removal process is performed using alkali hydroxides and/or alkali carbonates.

5. The method of reclaiming silicon wafers according to Claim 1, wherein both an immersion process for chemically processing a silicon wafer and a heating / removal process for heating the silicon wafer at

150 - 300°C for 20 minutes - 5 hours and for removing a surface part of the silicon wafer are included between the film removal process and the polishing process.

6. The method of reclaiming silicon wafers according to Claim 5, wherein a chemical processing liquid is defined as: a hydrogen peroxide aqueous solution; a mixed solution of a hydrogen peroxide aqueous solution, an ammonia aqueous solution, and water; a mixed solution of a hydrogen peroxide aqueous solution, hydrochloric acid, and water; alkali hydroxide aqueous solution; or alkali carbonate aqueous solution.

7. The method of reclaiming silicon wafers according to Claim 5, wherein the heating / removal process includes a mechanical removal process.

8. The method of reclaiming silicon wafers according to Claim 5, wherein the heating / removal process includes a chemical removal process.

9. The method of reclaiming silicon wafers according to Claim 8, wherein the chemical removal process is performed using alkali hydroxides and/or alkali carbonates.

10. The method of reclaiming silicon wafers according to Claim 6, wherein the heating / removal process includes a mechanical removal process.

11. The method of reclaiming silicon wafers according to Claim 6, wherein the heating / removal process includes a chemical removal process.

12. The method of reclaiming silicon wafers according to Claim 11, wherein the chemical removal is performed using alkali hydroxides and/or alkali carbonates.

13. The method of reclaiming silicon wafers according to Claim 12, wherein the alkali hydroxide and/or carbonate are selected from a group consisting of potassium hydroxide, potassium carbonate, sodium hydroxide, sodium carbonate, and quaternary alkyl ammonium hydroxides.